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Département à
La Haye
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B02187-0 EP

Anmeldung Nr./Application No./Demande n°./Patent Nr./Patent No./Brevet n°.

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Anmelder/Applicant/Demandeur/Patentinhaber/Proprietor/Titulaire

ALSTOM (Switzerland) Ltd

COMMUNICATION

The European Patent Office herewith transmits as an enclosure the European search report for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

☒ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

The following specifications given by the applicant have been approved by the Search Division:

☒ abstract

☒ title

☐ The abstract was modified by the Search Division and the definitive text is attached to this communication.

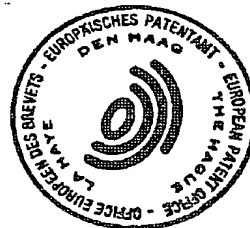
The following figure will be published together with the abstract:

1

Frist	21.01.2004	SB	AW
Agenda	PC	Erl.	gestrichen
/	04.08.03 YE		

REFUND OF THE SEARCH FEE

If applicable under Article 10 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A,D	US 5 558 758 A (FOSTER JOHN) 24 September 1996 (1996-09-24) * column 3 - column 4; example 1 *	1-13	C25D15/02 C25D5/14 F01D5/28
A	GB 1 358 538 A (BRISTOL AEROJET LTD) 3 July 1974 (1974-07-03) * page 1, line 27-35 * * page 1, line 82-84 * * page 2, line 18-89 *	1-13	
A	US 4 789 441 A (FOSTER JOHN ET AL) 6 December 1988 (1988-12-06) * column 1, line 52-64 * * column 4, line 21-57; examples B,C * * column 2, line 59-68 *	1-13	
A	EP 0 484 115 A (GEN ELECTRIC) 6 May 1992 (1992-05-06) * page 5, line 24-31 * * page 5, line 47-52 * * page 6 - page 7; examples 1-3 *	1-13	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			C25D F01D
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 13 August 2003	Examiner Haering, C
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 03 10 0733

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

13-08-2003

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5558758	A	24-09-1996	AU 661610 B2	27-07-1995
			AU 4721693 A	03-03-1994
			CA 2120615 A1	17-02-1994
			DE 69422435 D1	10-02-2000
			DE 69422435 T2	03-08-2000
			EP 0612360 A1	31-08-1994
			ES 2140529 T3	01-03-2000
			WO 9403656 A1	17-02-1994
			JP 2767496 B2	18-06-1998
			JP 6511519 T	22-12-1994
			RU 2127333 C1	10-03-1999
			SG 49744 A1	15-06-1998
GB 1358538	A	03-07-1974	NONE	
US 4789441	A	06-12-1988	BE 903377 A1	04-04-1986
			CA 1268139 A1	24-04-1990
			DE 3535548 A1	17-04-1986
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			JP 1627755 C	28-11-1991
			JP 2053520 B	16-11-1990
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			NL 8502724 A ,B,	01-05-1986
EP 0484115	A	06-05-1992	CA 2048804 A1	02-05-1992
			EP 0484115 A1	06-05-1992
			JP 4285198 A	09-10-1992



This application is covered by the extended European search report pilot project at present running within the European Patent Office, applied to all European patent applications filed as first filing and searched on or after 01.07.03. Under this project the EPO issues together with the search report an opinion on whether the application and the invention to which it relates meet the requirements of the EPC. This non-binding opinion is issued free of charge as a service. This opinion may be used as the basis for an informed decision as to whether it is desired to pursue the application further or not.

For further details of this pilot project, the applicant's attention is directed to the Official Journal edition 5/2003. If any further immediate questions or comments arise the EPO Customer Services: +31-70-340 4500 or +49-89-2399 2828 can be contacted.

The attached opinion reveals that the application or the invention to which it relates appear not to meet the requirements of the Convention (see comments on enclosed Form 2906).

If the applicant wishes to continue with this application the examination fee must be paid. Where appropriate amendments can be filed to address the objections raised in the opinion, thus shortening the overall procedure. If no amendments are filed, the opinion will be re-issued as the first official communication under Article 96(2) and Rule 51(2) EPC.

If the examination fee has already been paid and the right to the communication under Article 96(1) EPC has been waived for this application, the first official communication under Article 96(2) and Rule 51(2) EPC will be issued promptly.



The examination is being carried out on the **following application documents**:

Text for the Contracting States:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT SE SI SK TR LI

Description, pages:

1-8 as originally filed

Claims, No.:

1-13 as originally filed

Drawings, sheets:

1/1 as originally filed

Cited documents:

- D1: US-A-5 558 758 (FOSTER JOHN) 24 September 1996 (1996-09-24)
- D2: GB-A-1 358 538 (BRISTOL AEROJET LTD) 3 July 1974 (1974-07-03)
- D3: US-A-4 789 441 (FOSTER JOHN ET AL) 6 December 1988 (1988-12-06)
- D4: EP-A-0 484 115 (GEN ELECTRIC) 6 May 1992 (1992-05-06)

1. Disclosures:

- 1.1. Document D1 discloses a depositing method of a wear coating on the surface of gas turbine components wherein **one layer** of chromium carbide in a cobalt matrix is electroplated. The wear coating is then heated at 1000°C for 4 hours (c.3-c.4, example).
- 1.2. Document D2 discloses a depositing method of a wear coating on the surface of gas turbine components wherein **one layer** of chromium carbide particles in a cobalt matrix is electroplated (p.1, l.27-35). The wear coating is then heated at a temperature between 850°C and 1100°C for a period between two and 20 hours (p.1, l.82-84; p.2, l.18-89).
- 1.3. Document D3 discloses a depositing method of a wear coating on the surface of gas turbine components wherein **one layer** of CrAlY in a cobalt matrix is electroplated (c.1, l.52-64; c.4, l.21-57 - examples B and C). The wear coating is then heated at a temperature between 1050°C and 1150°C in vacuum for 1/2 to 2 1/2 hours (c.2, l.59-68).



- 1.4. Document D4 discloses a depositing method of a wear coating on turbine blades wherein **a first layer of cobalt** is electroplated, **and then a second layer of NiCrAlY** is co-electrodeposited (p.5, l.24-31; p.5, l.47-52). The wear coating is then heated at 1079°C to 1135°C for 2 to 4 hours (p.6 - p.7, examples 1, 2, 3).

In the light of the available prior art, the application is considered to contain patentable subject-matter.

The following amendments appear however necessary before a patent can be granted:

2. Clarity:

Claim 1 is not clear under Article 84 because at least an essential feature is missing. The fact that the method used is an **electroplating method**, as stipulated in the description, and claimed in claim 4, is essential, and should therefore be included in claim 1 (THE METHOD OF THE PRESENT APPLICATION IS BASED ON THE METHOD CITED OF D1; another method would lack disclosure and thus contravene Article 83 EPC).

The applicant is requested to file new claims which take account of the above comments. In order to facilitate the examination of the conformity of the amended application with the requirements of Article 123(2) EPC, the applicant is requested to clearly identify the amendments carried out, irrespective of whether they concern amendments by addition, replacement or deletion, and to indicate the passages of the application as filed on which these amendments are based.

If the applicant regards it as appropriate these indications could be submitted in handwritten form on a copy of the relevant parts of the application as filed.